## **REMARKS**

In response to Applicant's Appeal Brief, the Examiner decided to reopen prosecution and issued a new non-final office action mailed from the U.S. Patent Office on May 2, 2006. The rejections in the final Office Action dated September 13, 2005 and discussed by Applicant in the Appeal Brief were not maintained in the new non-final Office Action, but rather a new rejection of claims 6-17 based on the combination of Gaul (U.S. Patent No. 2,800,709) and Junker (U.S. Patent No. 1,701,889), or the combination of Gaul, Junker and Follrath (U.S. Patent No. 3,908,746) were presented.

In view of the following remarks, Applicant respectfully requests reconsideration and withdrawal of all grounds of rejection.

## Rejection of the Claims Under 35 U.S.C. § 103(a)

Claims 6, 11-14, 16 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Gaul in view of Junker. Claims 7-10 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Gaul, Junker, and Follrath. To establish a prima facie case of obviousness 1) there must be a motivation to combine the references, 2) there must be a reasonable expectation of success, and 3) the combination must teach or suggest all of the elements of Applicant's claims. Applicant respectfully submits that a prima facie case for obviousness does not exist against either independent claim 6 or independent claim 14 at least because 1) none of Gaul, Junker, or Follrath teaches or suggests cutting cladding layers directly from an ingot as claimed by Applicant and 2) there is no motivation to combine the teachings of Gaul with Junker and/or Follrath. Accordingly, Applicant respectfully requests reconsideration and removal of the 35 U.S.C. § 103(a) rejection of independent claims 6 and 14. Applicant also requests the removal of the 35 U.S.C. § 103(a) rejection of claims 7-13 and 15-17, which depend from either independent claim 6 or independent claim 14.

Gaul discloses a method for producing an aluminum composite material wherein a plate or liner of a first aluminum alloys is placed and tack welded to an ingot of a second aluminum alloy. The welded liner and ingot are rolled to form a composite sheet of two different aluminum alloys. See, for example, col. 4, lines 32-47 of Gaul. In contrast to the presently claimed invention, however, the liner or cladding strip of Gaul is not cut from an aluminum ingot and

immediately rolled together with the core ingot to become a composite material. Instead, according to Gaul, the liner is provided as stock material and is tack welded to the ingot before being rolled together to become a composite material. See, for example, col. 4, lines 68-70 of Gaul. Gaul's only description of the cladding material is that it is formed of stock liner. Nowhere within Gaul's disclosure does he teach or suggest that the cladding material can be cut directly from an ingot instead of being rolled to its desired thickness, as is the common practice of stock cladding materials. See, for example, paragraph [0010] of Applicant's specification.

Furthermore, according to Gaul, the stock cladding liner and ingot are bonded to each other by welding prior to rolling of the composite material. See, for example, Gaul at col. 4, lines 5-8. In other words, according to Gaul, the composite material is produced by welding the cladding liner to the ingot, and then rolling the attached materials together. In contrast thereto, according to the presently claimed invention, the composite material is produced merely by rolling together the cladding layer and the ingot serving as the core. The time-consuming welding step is thus not required for the presently claimed invention as it is for Gaul.

Junker only discloses a method by which metal strips are produced from an ingot by cutting a thin layer from an ingot using a cutting tool. Junker does not disclose producing a cladding layer or any other metal strips, especially not aluminum alloy strips suitable for cladding. In fact, Junker's only example is directed to brass which has completely different mechanical and metallurgical features than that of aluminum. Therefore in view of Junker's silence as to cladding layers and especially to aluminum strips which may be used as cladding layers, a person skilled in the art would not find it obvious to combine Junker with Gaul in order to arrive at the presently claimed invention.

Furthermore, Junker also does not suggest the possibility that a layer peeled off by a cutting tool is, without further rolling, already suitable for use as a cladding layer in a composite material. The combination of Junker and Gaul still requires that a cladding layer cut from an ingot would still be processed to form a stock liner. These stock liners have conventionally been formed through rolling the strip to its ultimate desired thickness for a specific stock cladding liner.

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Moreover, Junker does not teach or suggest that for producing the composite material, the step of welding the cladding liner to the core material may be omitted and that instead the cladding liner and the ingot material are bonded to each other only by rolling.

Moreover, the fact that there are no references known to the Applicant or to the Examiner that teach or suggest cutting of a cladding layer directly from an ingot (without an intermediate step of rolling) supports the conclusion that it would be impermissible hindsight to suggest that it would have been obvious to those skilled in the art to use the metal strips from by Junker's process in Gaul's methods, especial in light of the age of these references (i.e., 1927 and 1957).

Follrath's disclosure fails to cure the deficiencies of Gaul and Junker. Specifically Follrath merely teaches a continuous casting machine, which comprises means to cut an ingot in predetermine lengths. See, for example, Follrath's abstract, and col. 2, lines 13-16. Follrath, just like Gaul and Junker, fails to teach or suggest cutting of cladding layers directly from an ingot.

It is therefore believed that independent claims 6 and 14 are patentable over the prior art of record. As all other claims depend from one of claims 6 and 14, it is believed that they too are patentable over the prior art of record for the reasons given above.

## **CONCLUSION**

In view of the foregoing, Applicant respectfully submits that the claims 6-17 are in condition for allowance and request favorable action. The Examiner is welcome to contact Applicant's attorney at the number below with any questions.

Respectfully submitted,

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